

**ABSTRACT**

An embodiment of an ultrasound medical treatment system includes an ultrasound medical-treatment transducer and a controller. The controller powers the transducer to deliver ultrasound to thermally ablate patient tissue in vivo. In a first expression of the embodiment and/or a first method for thermally ablating patient tissue in vivo which optionally can employ the embodiment, the transducer is powered to deliver ultrasound for or beyond an in vivo treatment time which is a function of an experimentally-determined in vitro treatment time for the same ultrasound acoustic power. In a second expression of the embodiment and/or a second method, the transducer is powered to deliver ultrasound at or above an in vivo ultrasound acoustic power which is a function of an experimentally-determined in vitro ultrasound acoustic power for the same treatment time. In a third expression of the embodiment and/or a third method, the transducer is powered to deliver ultrasound at or above an ultrasound acoustic power threshold which is calculated from an equation.